

## SEQUENCE LISTING

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<120> COMPOSITIONS AND METHODS FOR THE THERAPY AND DIAGNOSIS  
 OF HER-2/NEU-ASSOCIATED MALIGNANCIES

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<140> US

<141> 2001-08-14

<160> 25

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Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys	
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Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His	
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ctc tac cag ggc tgc cag gtg gtg cag gga aac ctg gaa ctc acc tac	192
Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr	
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ctg ccc acc aat gcc agc ctg tcc ttc ctg cag gat atc cag gag gtg	240
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Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu	

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Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr	100	105	110	
gcc ctg gcc gtg cta gac aat gga gac ccg ctg aac aat acc acc cct				384
Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro	115	120	125	
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Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser	130	135	140	
ctc aca gag atc ttg aaa gga ggg gtc ttg atc cag cgg aac ccc cag				480
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aac cag ctg gct ctc aca ctg ata gac acc aac cgc tct cgg gcc tgc				576
Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys	180	185	190	
cac ccc tgt tct ccg atg tgt aag ggc tcc cgc tgc tgg gga gag agt				624
His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser	195	200	205	
tct gag gat tgt cag agc ctg acg cgc act gtc tgt gcc ggt ggc tgt				672
Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys	210	215	220	
gcc cgc tgc aag ggg cca ctg ccc act gac tgc tgc cat gag cag tgt				720
Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys	225	230	235	240
gct gcc ggc tgc acg ggc ccc aag cac tct gac tgc ctg gcc tgc ctc				768
Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu	245	250	255	
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His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val	260	265	270	
acc tac aac aca gac acg ttt gag tcc atg ccc aat ccc gag ggc cgg				864
Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg	275	280	285	
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Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu	290	295	300	
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Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln	305	310	315	320

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Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys	
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Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu	
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Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp	
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Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro	
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Asp Ser Leu Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg	
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Gly Arg Ile Leu His Asn Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu	
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Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu Leu Gly Ser Gly	
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Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val	
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Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr	
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Gln Leu Cys Ala Arg Gly His Cys Trp Gly Pro Gly Pro Thr Gln Cys	
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Phe Gly Pro Glu Ala Asp Gln Cys Val Ala Cys Ala His Tyr Lys Asp	
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Pro Pro Phe Cys Val Ala Arg Cys Pro Ser Gly Val Lys Pro Asp Leu	
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Ser Tyr Met Pro Ile Trp Lys Phe Pro Asp Glu Glu Gly Ala Cys Gln	
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Pro Cys Pro Ile Asn Cys Thr His Ser Cys Val Asp Leu Asp Asp Lys	
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Gly Cys Pro Ala Glu Gln Arg Ala Ser Pro Leu Thr Ser Ile Ile Ser	
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Ile Leu Ile Lys Arg Arg Gln Gln Lys Ile Arg Lys Tyr Thr Met Arg	
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Ala Met Pro Asn Gln Ala Gln Met Arg Ile Leu Lys Glu Thr Glu Leu	
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Pro	Ile	Cys	Thr	Ile	Asp	Val	Tyr	Met	Ile	Met	Val	Lys	Cys	Trp	Met	
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Ile	Asp	Ser	Glu	Cys	Arg	Pro	Arg	Phe	Arg	Glu	Leu	Val	Ser	Glu	Phe	
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Ser	Arg	Met	Ala	Arg	Asp	Pro	Gln	Arg	Phe	Val	Val	Ile	Gln	Asn	Glu	
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 Gly Met Val His His Arg His Arg Ser Ser Ser Thr Arg Ser Gly Gly  
 1045 1050 1055  
 Gly Asp Leu Thr Leu Gly Leu Glu Pro Ser Glu Glu Glu Ala Pro Arg  
 1060 1065 1070  
 Ser Pro Leu Ala Pro Ser Glu Gly Ala Gly Ser Asp Val Phe Asp Gly  
 1075 1080 1085  
 Asp Leu Gly Met Gly Ala Ala Lys Gly Leu Gln Ser Leu Pro Thr His  
 1090 1095 1100  
 Asp Pro Ser Pro Leu Gln Arg Tyr Ser Glu Asp Pro Thr Val Pro Leu  
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 Pro Ser Glu Thr Asp Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro Gln  
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 Pro Glu Tyr Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro  
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 Arg Pro Lys Thr Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val  
 1170 1175 1180  
 Phe Ala Phe Gly Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln  
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 <212> PRT  
 <213> Homo sapiens

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<210> 4  
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 <211> 1806  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 5

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taatga 1806

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&lt;210&gt; 6

&lt;211&gt; 1755

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6

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<210> 7

<211> 1773

<212> DNA

<213> Homo sapiens

<400> 7

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ttagaccatg tccgggaaaa ccgcggacgc ctgggctccc aggacctgct gaactgggtg 480
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<210> 8

<211> 587

<212> PRT

<213> Homo sapiens

<400> 8

Met Lys Arg Arg Gln Gln Lys Ile Arg Lys Tyr Thr Met Arg Arg Leu

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			20					25					30		
Pro	Asn	Gln	Ala	Gln	Met	Arg	Ile	Leu	Lys	Glu	Thr	Glu	Leu	Arg	Lys
		35					40					45			
Val	Lys	Val	Leu	Gly	Ser	Gly	Ala	Phe	Gly	Thr	Val	Tyr	Lys	Gly	Ile
	50					55					60				
Trp	Ile	Pro	Asp	Gly	Glu	Asn	Val	Lys	Ile	Pro	Val	Ala	Ile	Lys	Val
	65				70					75					80
Leu	Arg	Glu	Asn	Thr	Ser	Pro	Lys	Ala	Asn	Lys	Glu	Ile	Leu	Asp	Glu
				85					90					95	
Ala	Tyr	Val	Met	Ala	Gly	Val	Gly	Ser	Pro	Tyr	Val	Ser	Arg	Leu	Leu
			100					105					110		
Gly	Ile	Cys	Leu	Thr	Ser	Thr	Val	Gln	Leu	Val	Thr	Gln	Leu	Met	Pro
		115					120					125			
Tyr	Gly	Cys	Leu	Leu	Asp	His	Val	Arg	Glu	Asn	Arg	Gly	Arg	Leu	Gly
	130					135					140				
Ser	Gln	Asp	Leu	Leu	Asn	Trp	Cys	Met	Gln	Ile	Ala	Lys	Gly	Met	Ser
145					150					155					160
Tyr	Leu	Glu	Asp	Val	Arg	Leu	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn
				165					170					175	
Val	Leu	Val	Lys	Ser	Pro	Asn	His	Val	Lys	Ile	Thr	Asp	Phe	Gly	Leu
			180					185					190		
Ala	Arg	Leu	Leu	Asp	Ile	Asp	Glu	Thr	Glu	Tyr	His	Ala	Asp	Gly	Gly
		195					200					205			
Lys	Val	Pro	Ile	Lys	Trp	Met	Ala	Leu	Glu	Ser	Ile	Leu	Arg	Arg	Arg
	210					215					220				
Phe	Thr	His	Gln	Ser	Asp	Val	Trp	Ser	Tyr	Gly	Val	Thr	Val	Trp	Glu
225					230					235					240
Leu	Met	Thr	Phe	Gly	Ala	Lys	Pro	Tyr	Asp	Gly	Ile	Pro	Ala	Arg	Glu
				245					250					255	
Ile	Pro	Asp	Leu	Leu	Glu	Lys	Gly	Glu	Arg	Leu	Pro	Gln	Pro	Pro	Ile
			260					265					270		
Cys	Thr	Ile	Asp	Val	Tyr	Met	Ile	Met	Val	Lys	Cys	Trp	Met	Ile	Asp
	275						280					285			
Ser	Glu	Cys	Arg	Pro	Arg	Phe	Arg	Glu	Leu	Val	Ser	Glu	Phe	Ser	Arg
	290					295					300				
Met	Ala	Arg	Asp	Pro	Gln	Arg	Phe	Val	Val	Ile	Gln	Asn	Glu	Asp	Leu
305					310					315					320
Gly	Pro	Ala	Ser	Pro	Leu	Asp	Ser	Thr	Phe	Tyr	Arg	Ser	Leu	Leu	Glu
				325					330					335	
Asp	Asp	Asp	Met	Gly	Asp	Leu	Val	Asp	Ala	Glu	Glu	Tyr	Leu	Val	Pro
			340					345					350		
Gln	Gln	Gly	Phe	Phe	Cys	Pro	Asp	Pro	Ala	Pro	Gly	Ala	Gly	Gly	Met
		355					360								

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Tyr Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu
465                               470 475                               480
Gly Pro Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Pro
                               485 490                               495
Lys Thr Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala
                               500 505                               510
Phe Gly Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly
                               515 520 525
Ala Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp
                               530 535 540
Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro Pro
545                               550 555                               560
Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr Leu Gly
                               565 570 575
Leu Asp Val Pro Val His His His His His
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<210> 9
<211> 583
<212> PRT
<213> Homo sapiens

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<400> 9
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Pro Asn Gln Ala Gln Met Arg Ile Leu Lys Glu Thr Glu Leu Arg Lys
                               35 40 45
Val Lys Val Leu Gly Ser Gly Ala Phe Gly Thr Val Tyr Lys Gly Ile
                               50 55 60
Trp Ile Pro Asp Gly Glu Asn Val Lys Ile Pro Val Ala Ile Lys Val
65                               70 75                               80
Leu Arg Glu Asn Thr Ser Pro Lys Ala Asn Lys Glu Ile Leu Asp Glu
                               85 90 95
Ala Tyr Val Met Ala Gly Val Gly Ser Pro Tyr Val Ser Arg Leu Leu
                               100 105 110
Gly Ile Cys Leu Thr Ser Thr Val Gln Leu Val Thr Gln Leu Met Pro
                               115 120 125
Tyr Gly Cys Leu Leu Asp His Val Arg Glu Asn Arg Gly Arg Leu Gly
130                               135 140
Ser Gln Asp Leu Leu Asn Trp Cys Met Gln Ile Ala Lys Gly Met Ser
145                               150 155                               160
Tyr Leu Glu Asp Val Arg Leu Val His Arg Asp Leu Ala Ala Arg Asn
                               165 170 175
Val Leu Val Lys Ser Pro Asn His Val Lys Ile Thr Asp Phe Gly Leu
180                               185 190
Ala Arg Leu Leu Asp Ile Asp Glu Thr Glu Tyr His Ala Asp Gly Gly
195                               200 205
Lys Val Pro Ile Lys Trp Met Ala Leu Glu Ser Ile Leu Arg Arg Arg
210                               215 220
Phe Thr His Gln Ser Asp Val Trp Ser Tyr Gly Val Thr Val Trp Glu
225                               230 235                               240
Leu Met Thr Phe Gly Ala Lys Pro Tyr Asp Gly Ile Pro Ala Arg Glu
                               245 250 255
Ile Pro Asp Leu Leu Glu Lys Gly Glu Arg Leu Pro Gln Pro Pro Ile

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Cys Thr Ile Asp Val Tyr Met Ile Met Val Lys Cys Trp Met Ile Asp
      275      280      285
Ser Glu Cys Arg Pro Arg Phe Arg Glu Leu Val Ser Glu Phe Ser Arg
      290      295      300
Met Ala Arg Asp Pro Gln Arg Phe Val Val Ile Gln Asn Glu Asp Leu
      305      310      315      320
Gly Pro Ala Ser Pro Leu Asp Ser Thr Phe Tyr Arg Ser Leu Leu Glu
      325      330      335
Asp Asp Asp Met Gly Asp Leu Val Asp Ala Glu Glu Tyr Leu Val Pro
      340      345      350
Gln Gln Gly Phe Phe Cys Pro Asp Pro Ala Pro Gly Ala Gly Gly Met
      355      360      365
Val His Arg His Arg Ser Ser Thr Arg Ser Gly Gly Gly Asp
      370      375      380
Leu Thr Leu Gly Leu Glu Pro Ser Glu Glu Glu Ala Pro Arg Ser Pro
      385      390      395      400
Leu Ala Pro Ser Glu Gly Ala Gly Ser Asp Val Phe Asp Gly Asp Leu
      405      410      415
Gly Met Gly Ala Ala Lys Gly Leu Gln Ser Leu Pro Thr His Asp Pro
      420      425      430
Ser Pro Leu Gln Arg Tyr Ser Glu Asp Pro Thr Val Pro Leu Pro Ser
      435      440      445
Glu Thr Asp Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu
      450      455      460
Tyr Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu
      465      470      475      480
Gly Pro Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Pro
      485      490      495
Lys Thr Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala
      500      505      510
Phe Gly Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly
      515      520      525
Ala Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp
      530      535      540
Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro Pro
      545      550      555      560
Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr Leu Gly
      565      570      575
Leu Asp Val Pro Val Leu Glu
      580

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<210> 10
<211> 589
<212> PRT
<213> Homo sapiens

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<400> 10
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Arg Lys Tyr Thr Met Arg Arg Leu Leu Gln Glu Thr Glu Leu Val Glu
      20      25      30
Pro Leu Thr Pro Ser Gly Ala Met Pro Asn Gln Ala Gln Met Arg Ile
      35      40      45
Leu Lys Glu Thr Glu Leu Arg Lys Val Lys Val Leu Gly Ser Gly Ala
      50      55      60

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Phe	Gly	Thr	Val	Tyr	Lys	Gly	Ile	Trp	Ile	Pro	Asp	Gly	Glu	Asn	Val
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Lys	Ile	Pro	Val	Ala	Ile	Lys	Val	Leu	Arg	Glu	Asn	Thr	Ser	Pro	Lys
				85					90					95	
Ala	Asn	Lys	Glu	Ile	Leu	Asp	Glu	Ala	Tyr	Val	Met	Ala	Gly	Val	Gly
			100					105					110		
Ser	Pro	Tyr	Val	Ser	Arg	Leu	Leu	Gly	Ile	Cys	Leu	Thr	Ser	Thr	Val
		115					120					125			
Gln	Leu	Val	Thr	Gln	Leu	Met	Pro	Tyr	Gly	Cys	Leu	Leu	Asp	His	Val
	130					135					140				
Arg	Glu	Asn	Arg	Gly	Arg	Leu	Gly	Ser	Gln	Asp	Leu	Leu	Asn	Trp	Cys
145					150					155					160
Met	Gln	Ile	Ala	Lys	Gly	Met	Ser	Tyr	Leu	Glu	Asp	Val	Arg	Leu	Val
				165					170					175	
His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Val	Leu	Val	Lys	Ser	Pro	Asn	His
			180					185					190		
Val	Lys	Ile	Thr	Asp	Phe	Gly	Leu	Ala	Arg	Leu	Leu	Asp	Ile	Asp	Glu
		195					200					205			
Thr	Glu	Tyr	His	Ala	Asp	Gly	Gly	Lys	Val	Pro	Ile	Lys	Trp	Met	Ala
	210					215					220				
Leu	Glu	Ser	Ile	Leu	Arg	Arg	Arg	Phe	Thr	His	Gln	Ser	Asp	Val	Trp
225					230					235					240
Ser	Tyr	Gly	Val	Thr	Val	Trp	Glu	Leu	Met	Thr	Phe	Gly	Ala	Lys	Pro
				245					250					255	
Tyr	Asp	Gly	Ile	Pro	Ala	Arg	Glu	Ile	Pro	Asp	Leu	Leu	Glu	Lys	Gly
			260					265					270		
Glu	Arg	Leu	Pro	Gln	Pro	Pro	Ile	Cys	Thr	Ile	Asp	Val	Tyr	Met	Ile
		275					280					285			
Met	Val	Lys	Cys	Trp	Met	Ile	Asp	Ser	Glu	Cys	Arg	Pro	Arg	Phe	Arg
	290					295				300					
Glu	Leu	Val	Ser	Glu	Phe	Ser	Arg	Met	Ala	Arg	Asp	Pro	Gln	Arg	Phe
305					310					315					320
Val	Val	Ile	Gln	Asn	Glu	Asp	Leu	Gly	Pro	Ala	Ser	Pro	Leu	Asp	Ser
				325					330					335	
Thr	Phe	Tyr	Arg	Ser	Leu	Leu	Glu	Asp	Asp	Asp	Met	Gly	Asp	Leu	Val
			340					345					350		
Asp	Ala	Glu	Glu	Tyr	Leu	Val	Pro	Gln	Gln	Gly	Phe	Phe	Cys	Pro	Asp
		355					360					365			
Pro	Ala	Pro	Gly	Ala	Gly	Gly	Met	Val	His	His	Arg	His	Arg	Ser	Ser
	370					375					380				
Ser	Thr	Arg	Ser	Gly	Gly	Gly	Asp	Leu	Thr	Leu	Gly	Leu	Glu	Pro	Ser
385					390					395					400
Glu	Glu	Glu	Ala	Pro	Arg	Ser	Pro	Leu	Ala	Pro	Ser	Glu	Gly	Ala	Gly
				405					410					415	
Ser	Asp	Val	Phe	Asp	Gly	Asp	Leu	Gly	Met	Gly	Ala	Ala	Lys	Gly	Leu
			420					425					430		
Gln	Ser	Leu	Pro	Thr	His	Asp	Pro	Ser	Pro	Leu	Gln	Arg	Tyr	Ser	Glu
		435					440					445			
Asp	Pro	Thr	Val	Pro	Leu	Pro	Ser	Glu	Thr	Asp	Gly	Tyr	Val	Ala	Pro
	450					455					460				
Leu	Thr	Cys	Ser	Pro	Gln	Pro	Glu	Tyr	Val	Asn	Gln	Pro	Asp	Val	Arg
465					470					475					480
Pro	Gln	Pro	Pro	Ser	Pro	Arg	Glu	Gly	Pro	Leu	Pro	Ala	Ala	Arg	Pro
				485					490					495	
Ala	Gly	Ala	Thr	Leu	Glu	Arg	Pro	Lys	Thr	Leu	Ser	Pro	Gly	Lys	Asn
			500					505					510		
Gly	Val	Val	Lys	Asp	Val	Phe	Ala	Phe	Gly	Gly	Ala	Val	Glu	Asn	Pro



515					520					525					
Glu	Tyr	Leu	Thr	Pro	Gln	Gly	Gly	Ala	Ala	Pro	Gln	Pro	His	Pro	Pro
530					535					540					
Pro	Ala	Phe	Ser	Pro	Ala	Phe	Asp	Asn	Leu	Tyr	Tyr	Trp	Asp	Gln	Asp
545					550					555					560
Pro	Pro	Glu	Arg	Gly	Ala	Pro	Pro	Ser	Thr	Phe	Lys	Gly	Thr	Pro	Thr
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Ala	Glu	Asn	Pro	Glu	Tyr	Leu	Gly	Leu	Asp	Val	Pro	Val			
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<210> 11
<211> 600
<212> PRT
<213> Homo sapiens
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<400>	11														
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Asp	Asp	Asp	Lys	Lys	Arg	Arg	Gln	Gln	Lys	Ile	Arg	Lys	Tyr	Thr	Met
			20					25					30		
Arg	Arg	Leu	Leu	Gln	Glu	Thr	Glu	Leu	Val	Glu	Pro	Leu	Thr	Pro	Ser
		35					40					45			
Gly	Ala	Met	Pro	Asn	Gln	Ala	Gln	Met	Arg	Ile	Leu	Lys	Glu	Thr	Glu
	50					55					60				
Leu	Arg	Lys	Val	Lys	Val	Leu	Gly	Ser	Gly	Ala	Phe	Gly	Thr	Val	Tyr
	65				70					75					80
Lys	Gly	Ile	Trp	Ile	Pro	Asp	Gly	Glu	Asn	Val	Lys	Ile	Pro	Val	Ala
				85					90					95	
Ile	Lys	Val	Leu	Arg	Glu	Asn	Thr	Ser	Pro	Lys	Ala	Asn	Lys	Glu	Ile
			100					105				110			
Leu	Asp	Glu	Ala	Tyr	Val	Met	Ala	Gly	Val	Gly	Ser	Pro	Tyr	Val	Ser
		115					120					125			
Arg	Leu	Leu	Gly	Ile	Cys	Leu	Thr	Ser	Thr	Val	Gln	Leu	Val	Thr	Gln
	130					135					140				
Leu	Met	Pro	Tyr	Gly	Cys	Leu	Leu	Asp	His	Val	Arg	Glu	Asn	Arg	Gly
	145				150					155					160
Arg	Leu	Gly	Ser	Gln	Asp	Leu	Leu	Asn	Trp	Cys	Met	Gln	Ile	Ala	Lys
				165					170					175	
Gly	Met	Ser	Tyr	Leu	Glu	Asp	Val	Arg	Leu	Val	His	Arg	Asp	Leu	Ala
			180					185					190		
Ala	Arg	Asn	Val	Leu	Val	Lys	Ser	Pro	Asn	His	Val	Lys	Ile	Thr	Asp
		195					200					205			
Phe	Gly	Leu	Ala	Arg	Leu	Leu	Asp	Ile	Asp	Glu	Thr	Glu	Tyr	His	Ala
	210					215					220				
Asp	Gly	Gly	Lys	Val	Pro	Ile	Lys	Trp	Met	Ala	Leu	Glu	Ser	Ile	Leu
	225				230					235					240
Arg	Arg	Arg	Phe	Thr	His	Gln	Ser	Asp	Val	Trp	Ser	Tyr	Gly	Val	Thr
				245					250					255	
Val	Trp	Glu	Leu	Met	Thr	Phe	Gly	Ala	Lys	Pro	Tyr	Asp	Gly	Ile	Pro
			260					265					270		
Ala	Arg	Glu	Ile	Pro	Asp	Leu	Leu	Glu	Lys	Gly	Glu	Arg	Leu	Pro	Gln
		275					280					285			
Pro	Pro	Ile	Cys	Thr	Ile	Asp	Val	Tyr	Met	Ile	Met	Val	Lys	Cys	Trp
	290					295					300				
Met	Ile	Asp	Ser	Glu	Cys	Arg	Pro	Arg	Phe	Arg	Glu	Leu	Val	Ser	Glu
	305				310					315					320

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<210> 12
<211> 957
<212> DNA
<213> Homo sapiens
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acttgttctc	agaatatgaa	ccatgagtat	atgtcctggt	atcgacaaga	cccaggggctg	180
ggcttaaggc	agatctacta	ttcaatgaat	gttgagggtga	ctgataaggg	agatgttctt	240
gaagggtaca	aagtcctctg	aaaagagaag	aggaatttcc	ccctgatcct	ggagtgcgcc	300
agccccaac	agacctctct	gtacttctgt	gccagcagtt	tagattgggg	cggactagcg	360
ggagggttg	gcacagatac	gcagtatttt	ggcccaggca	cccggctgac	agtgtctgag	420
gacctgaaaa	acgtgttccc	acccgagggtc	gctgtgtttg	agccatcaga	agcagagatc	480
tccacacccc	aaaaggccac	actgggatgc	ctggccacag	gcttctaccc	cgaccacgtg	540
gagctgagct	ggtgggtgaa	tgggaaggag	gtgcacaagt	ggggtcagca	cagacccgca	600
gccccctcaag	gagcaagccc	gccctcaatg	actccagata	ctgtcagaca	gccgcttgag	660
ggtctcgcc	acttctggca	gaacccccgc	aaccacttcc	gctgtcaagt	ccagttctac	720
gggctctcgg	agaatgacga	gtggaccag	gatagggccca	aacctgtcac	ccagatcgtc	780

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agcgccgagg cctggggtag agcagactgt ggcttcacct ccgagtctta ccagcaaggg 840
gtcctgtctg ccaccatcct ctatgagatc ttgctaggga aggccacctt gtatgccgtg 900
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<210> 13
<211> 686
<212> DNA
<213> Homo sapiens

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cagtcagtgg ctcagccgga agatcaggtc aacgttgctg aagggaatcc tctgactgtg 120
aaatgcacct attcagtcct tggaaacctt tatctttttt ggtatgttca ataccccaac 180
cgaggcctcc agttccttct gaaatacatc acaggggata acctgggtta aggagctat 240
ggccttgaag ctgaatttaa caagagccaa acctccttcc acctgaagaa accatctgcc 300
cttgtagagc actccgcttt gtactttctgt gctgtgagac cgaattcagg atacagcacc 360
ctcacctttg ggaagggggac tatgcttcta gtctctccag atatccagaa ccctgaccct 420
gccgtgtacc agctgagaga ctctaaatcc agtgacaagt ctgtctgcct attcaccgat 480
tttgattctc aaacaaatgt gtcacaaagt aaggattctg atgtgtatat cacagacaaa 540
actgtgctag acatgaggtc tatggacttc aagagcaaca gtgctgtggc ctggagcaac 600
aaatctgact ttgcatgtgc aaacgccttc aacaacagca ttattccaga agacaccttc 660
ttcccagcc cagaaagttc ctgtga 686

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<210> 14
<211> 318
<212> PRT
<213> Homo sapiens

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<400> 14
Met Gly Pro Gln Leu Leu Gly Tyr Val Val Leu Cys Leu Leu Gly Ala
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Gly Pro Leu Glu Ala Gln Val Thr Gln Asn Pro Arg Tyr Leu Ile Thr
                    20                      25                      30
Val Thr Gly Lys Lys Leu Thr Val Thr Cys Ser Gln Asn Met Asn His
                    35                      40                      45
Glu Tyr Met Ser Trp Tyr Arg Gln Asp Pro Gly Leu Gly Leu Arg Gln
                    50                      55                      60
Ile Tyr Tyr Ser Met Asn Val Glu Val Thr Asp Lys Gly Asp Val Pro
                    65                      70                      75                      80
Glu Gly Tyr Lys Val Ser Arg Lys Glu Lys Arg Asn Phe Pro Leu Ile
                    85                      90                      95
Leu Glu Ser Pro Ser Pro Asn Gln Thr Ser Leu Tyr Phe Cys Ala Ser
                    100                     105                     110
Ser Leu Asp Trp Gly Gly Leu Ala Gly Gly Leu Gly Thr Asp Thr Gln
                    115                     120                     125
Tyr Phe Gly Pro Gly Thr Arg Leu Thr Val Leu Glu Asp Leu Lys Asn
                    130                     135                     140
Val Phe Pro Pro Glu Val Ala Val Phe Glu Pro Ser Glu Ala Glu Ile
                    145                     150                     155                     160
Ser His Thr Gln Lys Ala Thr Leu Val Cys Leu Ala Thr Gly Phe Tyr
                    165                     170                     175
Pro Asp His Val Glu Leu Ser Trp Trp Val Asn Gly Lys Glu Val His
                    180                     185                     190
Lys Trp Gly Gln His Arg Pro Ala Ala Pro Gln Gly Ala Ser Pro Pro
                    195                     200                     205
Ser Met Thr Pro Asp Thr Ala Glu Gln Pro Pro Glu Gly Leu Gly His
                    210                     215                     220

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Phe Trp Gln Asn Pro Arg Asn His Phe Arg Cys Gln Val Gln Phe Tyr
225                230                235                240
Gly Leu Ser Glu Asn Asp Glu Trp Thr Gln Asp Arg Ala Lys Pro Val
                245                250                255
Thr Gln Ile Val Ser Ala Glu Ala Trp Gly Arg Ala Asp Cys Gly Phe
                260                265                270
Thr Ser Glu Ser Tyr Gln Gln Gly Val Leu Ser Ala Thr Ile Leu Tyr
                275                280                285
Glu Ile Leu Leu Gly Lys Ala Thr Leu Tyr Ala Val Leu Val Ser Ala
                290                295                300
Leu Val Leu Met Ala Met Val Lys Arg Lys Asp Ser Arg Gly
305                310                315

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<210> 15
<211> 228
<212> PRT
<213> Homo sapiens

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<400> 15
Met Ala Ser Ala Pro Ile Ser Met Leu Ala Met Leu Phe Thr Leu Ser
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Gly Leu Arg Ala Gln Ser Val Ala Gln Pro Glu Asp Gln Val Asn Val
                20                25                30
Ala Glu Gly Asn Pro Leu Thr Val Lys Cys Thr Tyr Ser Val Ser Gly
                35                40                45
Asn Pro Tyr Leu Phe Trp Tyr Val Gln Tyr Pro Asn Arg Gly Leu Gln
                50                55                60
Phe Leu Leu Lys Tyr Ile Thr Gly Asp Asn Leu Val Lys Gly Ser Tyr
                65                70                75                80
Gly Phe Glu Ala Glu Phe Asn Lys Ser Gln Thr Ser Phe His Leu Lys
                85                90                95
Lys Pro Ser Ala Leu Val Ser Asp Ser Ala Leu Tyr Phe Cys Ala Val
                100                105                110
Arg Pro Asn Ser Gly Tyr Ser Thr Leu Thr Phe Gly Lys Gly Thr Met
                115                120                125
Leu Leu Val Ser Pro Asp Ile Gln Asn Pro Asp Pro Ala Val Tyr Gln
                130                135                140
Leu Arg Asp Ser Lys Ser Ser Asp Lys Ser Val Cys Leu Phe Thr Asp
145                150                155                160
Phe Asp Ser Gln Thr Asn Val Ser Gln Ser Lys Asp Ser Asp Val Tyr
                165                170                175
Ile Thr Asp Lys Thr Val Leu Asp Met Arg Ser Met Asp Phe Lys Ser
                180                185                190
Asn Ser Ala Val Ala Trp Ser Asn Lys Ser Asp Phe Ala Cys Ala Asn
                195                200                205
Ala Phe Asn Asn Ser Ile Ile Pro Glu Asp Thr Phe Phe Pro Ser Pro
                210                215                220
Glu Ser Ser Cys
225

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<210> 16
<211> 48
<212> DNA
<213> Artificial Sequence

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<220>

<223> primer PDM-44

<400> 16

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48

<210> 17

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> primer PDM-45

<400> 17

cagggcgcgc cactcgagtc attacactgg cacgtccaga cccag

45

<210> 18

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> primer PDM-591

<400> 18

cacaaacgac ggcagcagaa gatccggaag

30

<210> 19

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> primer PDM-592

<400> 19

gcgccactcg agtcattaca ctggcacgtc

30

<210> 20

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> primer PDM-72

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33

<210> 21

<211> 77

<212> DNA

<213> Artificial Sequence

<220>

<223> primer PDM-61

<400> 21  
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acgtccagac ccaggta 77

<210> 22  
<211> 37  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer TCR Valpha-16 5'

<400> 22  
ggatccgccc ccaccatggc ctctgcaccc atctcga 37

<210> 23  
<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer TCR alpha 3'

<400> 23  
gtcgactcag ctggaccaca gccgcag 27

<210> 24  
<211> 38  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer TCR Vbeta-14. 5'

<400> 24  
ggatccgccc ccaccatggg cccccagctc cttggcta 38

<210> 25  
<211> 27  
<212> DNA  
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<220>  
<223> primer TCR beta 3'

<400> 25  
gtcgactcag aaatcctttc tottgac 27